1883MNRAS..43R.300D

subtended by any plane figure placed in the common focus of the objective and eyepiece as seen from the two ends of the telescope.

Ann Arbor, Mich.. 1883, *Feb.* 5.

Physical Observations of Jupiter. By W. F. Denning.

Mr. Marth has discussed (*Monthly Notices*, vol. xlii. pp. 427–433) the observations of the white equatorial spot made between 1880, Aug. 27, and 1882, Aug. 7, and finds the rotation period $9^{h}\ 50^{m}\ 7^{s}\cdot42=878^{\circ}\cdot46$ daily rate. This is the same object as that observed by Prof. Hough (Annual Report of the Dearborn Observatory, 1882, pp. 50, 51) from 1880, Oct. 28, to 1882, March 31, and for which he has determined the period to be $9^{h}\ 50^{m}\ 9^{s}\cdot8$. The great red spot which has formed so conspicuous an object on the planet during the few preceding years has now become extremely faint, and it appears probable that it may shortly disappear. Its retarded motion continues. On 1883, Mar. 18, it crossed the planet's central meridian $1^{h}\ 29^{m}\cdot4$ after the assumed first meridian, as computed by Mr. Marth from the period $9^{h}\ 55^{m}\ 34^{s}\cdot47$ ($=870^{\circ}\cdot42$ daily rate). Relatively to this adopted time of rotation the spot has lost about 4^{m} per month, owing to its slackening velocity, since early in May 1881. The comparative motion of this red spot and of the white equatorial spot continue to afford some interesting results. From observations on 1883, March 15, the epoch of conjunction of the two markings was found to be, 1883, March 15, $13^{h}\ 38^{m}$. The figures show that since 1880, Nov. 19, $9^{h}\ 23^{m}$—a period of $846^{d}\ 4^{h}\ 15^{m}$—the white equatorial spot had completed 19 revolutions of *Jupiter* relatively to the red spot, the number of rotations performed by the latter being 2045 and by the former 2064. The white spot continues to be as brilliant and well-defined as when it first attracted notice, and gives promise to remain visible for a very lengthened period.

Bristol: 1883, *March.*

Note on Observations of Mercury. By W. F. Denning.

I obtained observations of this planet just before sunrise on the mornings of November 6, 7, 9, and 10, 1882, with my 10-inch Browning Reflector, power about 212. Some dark, irregular spots were distinctly seen upon the planet; also a small brilliant spot, and a large white area between the E.N.E. limb and terminator. The south horn was also much blunted, especially on the two first dates of observation. My results have led me to infer that the markings upon *Mercury* are far more decided and easily discernible than those on *Venus*; and that the aspect o the former planet presents a close analogy to the physical appearf ance of *Mars*. The rotation period of $24^{h}\ 5^{m}\ 30^{s}$ given b- Schröter seemed too short to conform with the relative placy

Downloaded from http://mnras.oxfordjournals.org/ at New York University on June 1, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System

1883MNRAS..43..301.

of the markings as I delineated * them on the several dates referred to; and I wrote to Sig. Schiaparelli, of Milan, enclosing him the particulars of my results, as he has latterly been observing this planet with signal success. In discussing my notes he says:—"You were right in saying that this planet is much easier to observe than *Venus*, and that his aspect resembles *Mars* more than any other of the planets of the solar system. There are spots sometimes partially obscured and sometimes completely so; there are also brilliant white spots in a variable position. You are also right in suspecting that the rotation of Schröter was not exact." Sig. Schiaparelli mentions that his most successful results have been obtained with the planet near superior conjunction, when the defect of the diameter was compensated for by seeing nearly all the disk, which is then more strongly illuminated than near dichotomy.

I wish to call brief attention to these observations, in the hope that observers having equatorially-mounted instruments will examine the planet near superior conjunction. Sig. Schiaparelli has evidently utilised his favourable climate and instrumental means to obtain some important clue to physical phenomena of much interest on this systematically neglected member of our system.

Bristol: 1883, *March* 5.

On the Account of William Ball's Observation of Saturn in the Philosophical Transactions. By Henry T. Vivian.

I have read with great interest the paper by Professor Adams on this subject in the January number of the *Monthly Notices*; but notwithstanding the able manner in which he has dealt with it, it does not appear to me that the difficulties connected therewith, of which he speaks in the early part of his paper, have been altogether removed. There is an explanation, which perhaps has not occurred to Professor Adams, that, I think, may do something towards rendering the matter a little less obscure, and which will make the account in the *Philosophical Transactions* consistent with Ball's observation and his own account of it in his letter.

If we look at the request of the "Person to whom notice was sent" as an attempt to revive, in opposition to Huyghens, the opinion of Hevelius, that *Saturn* was elliptical and enclosed between two circular-shaped bodies, one on each side of him, we shall have this fully supported by the observation of October 13, as may easily be seen by supposing the outline of the planet in fig. 3 to be completed. The account of Ball's observation may then be considered accurate, and the figure correct. This view of the matter appears also to be supported by Ball's first letter of April 14. That letter alludes to observations made in three

---

* These drawings are on the eve of publication in the French serial *L'Astronomie.*

Downloaded from http://mnras.oxfordjournals.org/ at New York University on June 1, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System